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Purpose of and Need for Action

Section 1 describes the purpose of and need for the improvements being considered to the IL 29 corridor. Purpose and need factors encompass improvements intended to correct not only existing problems but also those that may occur later during the 27-year planning period.

1.1 Proposed Action

The Illinois Department of Transportation (IDOT), in consultation with the Federal Highway Administration (FHWA), is studying alternatives to enhance continuity and to improve the safety and travel efficiency in the Illinois Route 29 (IL 29) corridor from IL 6 near Mossville in Peoria County to the Interstate 180 (I-180) interchange north of Kentville Road in Bureau County. From IL 6 to Hart Lane north of Chillicothe, proposed improvements would either follow existing IL 29 or proceed on a new alignment bypassing Chillicothe on the west. North of Chillicothe, the proposed improvements generally would follow existing IL 29. To minimize community impacts and impacts to natural areas, Department of Natural Resources property, and Section 4(f) resources, alternatives on new alignment will be evaluated west of Hopewell, Sparland, and Henry, and east of Putnam. The 35-mile-long study area includes parts of Peoria, Marshall, Putnam, and Bureau counties (Exhibit 1-1). The principal communities in the study area are Chillicothe, Sparland, Lacon, and Henry. Smaller communities include Mossville, Rome, Hopewell, and Putnam.

IL 6 at the south end of the project and I-180 at the north end are the logical termini for the IL 29 study. Both highways are 4-lane access-controlled facilities. The termini are of sufficient length to address environmental matters, provide a section of study that has independent utility (that is, would be a reasonable expenditure even if no additional transportation improvements were made in the area), and do not restrict consideration of alternatives for other reasonably foreseeable transportation improvements.

1.2 Purpose and Need

The purpose of the proposed action is to improve transportation continuity, facilitate modal interrelationships, improve travel efficiency, and enhance economic stability within the IL 29 corridor from IL 6 in Peoria County to I-180 in Bureau County. The proposed facility will provide an efficient highway that will serve existing and future travel demand for both regional and local travelers while minimizing disturbance to the natural and built environment. The need for the proposed action is based on a combination of factors related to:

- Project history
- Travel efficiency, which includes existing and future traffic, highway operations, and existing highway characteristics
- System linkage, facility continuity, and route importance

- Modal interrelationships
- Economic stability

The remainder of this section discusses these factors.

1.2.1 Project History

The need to provide the Peoria metropolitan area and the west side of the Illinois River with efficient north-south access to IL 6/I-74 and I-180 is long standing. After completion of the initial interstate system, IDOT and the state recognized the need for additional east-west and north-south access throughout the state. In 1968, IDOT sent a request to the Federal Bureau of Public Roads (now the FHWA) for three interstate routes in the state. One of the requested routes was a section of interstate highway extending from I-74 in Peoria to I-180 at Hennepin.

In 1969, the General Assembly passed legislation making possible major highway improvements statewide. An important part of that legislation was the Supplemental Freeway System. One of the freeways included in the enabling legislation, Supplemental Freeway F-5 (later known as FA 405), extended west of the Illinois River from Peoria to Hennepin (Exhibit 1-2).

After the legislation was passed, IDOT prepared a Corridor Study for FA 405. Public hearings were held in early 1970, and the final Corridor Report was approved in June 1972. Of the three freeway corridors considered in the report, one generally followed IL 29 (Exhibit 1-3). Following completion of the Corridor Report, IDOT prepared Draft and Final Environmental Impact Statements (EISs) for the section of FA 405 between I-74 and Cedar Hills Drive (County Highway 25) near Mossville. The Draft and Final EISs were completed by August 1976. IDOT then began design studies for the section between I-74 and Mossville, which was constructed in 1986.

In late 1974, IDOT began a Draft EIS for the remainder of FA 405 between Cedar Hills Drive and Hennepin. The EIS process was not completed, and in 1976 the study was suspended.

In 1986, IDOT's Special Studies Unit evaluated the feasibility of constructing a 4-lane bypass west of Chillicothe and upgrading IL 29 north of Chillicothe to a 4-lane highway. All the alignments north of Chillicothe generally followed existing IL 29. Because of the bluffs on the west and the railroad on the east, the width of the median varied along the study area. No additional lanes were proposed north of Henry.

In 1995, IDOT concluded the Heart of Illinois Highway Feasibility Study. The 2-year study investigated the feasibility of constructing a new highway that would provide a direct link between Peoria and Chicago. It examined a number of broad highway corridors to determine whether a new highway would be physically, environmentally, and economically feasible. At the conclusion of the study, the IDOT announced three feasible Heart of Illinois Highway corridors. One corridor extended between IL 6 and I-180 and was located along the bluff west of IL 29. Alternatives were developed within this corridor as part of the Heart of Illinois Phase I Study in 2000.

Although the Heart of Illinois Highway Phase I Study provided some base data for the current study, the two studies have different purposes. The purpose of the Heart of Illinois Highway study was to provide a high-type highway connection between Peoria and

Chicago to enhance the efficiency of trips between metropolitan areas. The purpose of the IL 29 study, as noted previously, is to enhance continuity and improve the safety and travel efficiency along IL 29 from IL 6 to the I-180 interchange. This study also seeks to maximize multimodal opportunities in the IL 29 corridor and to maintain existing development. While the current study and the Heart of Illinois Highway Phase I Study may have some common elements, the IL 29 improvement will not necessarily meet the purpose of and need for the Heart of Illinois Highway Phase I Study.

The current IL 29 study is the latest effort in 35 years to improve north-south access between I-74 and I-180 west of the Illinois River. The rationale behind the original vision of providing improved east-west and north-south access throughout the state to augment the interstate system remains valid. In that respect, the IL 29 study shares similarities with the other supplemental highways (Exhibit 1-2) that have been constructed: FA Highway 412 (I-39), FA Highway 406 (I-155), FA Highway 408 (I-72), FA Highway 407 (IL 336 partially constructed), and FA Highway 413 (U.S. 67 partially constructed).

1.2.2 System Linkage, Facility Continuity, and Route Importance

System linkage and continuity are major considerations in determining the need for the proposed improvement. IL 29 is an important connecting link in the regional transportation system. Since the construction of I-180 and IL 6, IL 29 has functioned as the only direct connection between them. It has, however, served as an inadequate replacement for the state's original vision of a "supplemental four-lane highway" connecting I-74 and I-180. The 2-lane IL 29 connection fails to meet the level of travel reliability and safety of IL 6 and I-180, and interrupts or interferes with the continuity of travel between those points. Closing the gap in the high-type highway network between IL 6 and I-180 would have systemwide benefits, including improving route continuity and reducing travel times for those traveling to and from the study area.

Further evidence of the importance of IL 29 in the regional transportation system is reflected in the designation the route has been given by the state and FHWA. The state and FHWA included IL 29 between IL 6 and I-180 in Illinois's part of the National Highway System (Exhibits 1-4 and 1-5). The National Highway System (NHS) was created by The National Highway System Designation Act of 1995. That legislation designated 161,000 miles of roads throughout the country as the NHS. The NHS includes the interstate system as well as rural and urban principal arterial highways serving major population centers, international border crossings, intermodal transportation facilities, and major travel destinations. The principal arterial highways (like IL 29) in the NHS account for 57 percent of the system's total miles.

In September 2005, the U.S. Secretary of Transportation designated parts of IL 29 a National Scenic Byway, called the Illinois River Road: Route of the Voyagers Scenic Byway. The scenic byway unifies and connects a number of different geological regions, natural areas, plant communities, and wildlife habitats unique to the Illinois River Valley.

Although the NHS includes only 4 percent of the nation's roads, it carries more than 40 percent of all highway traffic, 75 percent of heavy truck traffic, and 90 percent of tourist traffic. The lack of a 4-lane connection along IL 29 hinders travel and transport opportunities for study area communities, thereby interfering with the ability of IL 29 to fully meet the purposes of a principal arterial and NHS route.

IL 29 is the only 2-lane NHS route in the study area. Using IL 6 and I-180, it is the only noninterstate NHS connection between I-74 and I-80. South of the project area, IL 29 is not included in the NHS, which confirms the importance of the connection it provides between IL 6 and I-180.

1.2.3 Modal Interrelationships

Industrial and agricultural interests in the study corridor ship and receive products using the highway network, rail network (Lincoln & Southern Railroad and CSX), and barge terminal (Illinois River Waterway terminals). IL 29 serves barge terminals in Chillicothe, Lacon (in conjunction with IL 17 and IL 26), Henry, and Hennepin. The reach of the Illinois River in the study area is part of the Illinois River Waterway that extends 350 miles from Lake Michigan to the upper Mississippi River. Peoria docks are the northernmost regional docks that remain open the entire year. According to the U.S. Army Corps of Engineers (USACE), the 109 million tons shipped to, from, and within Illinois on barges in 1999 had a value of more than $16.5 billion.

IL 29 also serves industries in Henry's industrial park that have direct connections to the Lincoln & Southern Railroad and CSX. The Iowa Interstate Railroad operates more than 500 miles of railroad between Omaha, Nebraska and Chicago, with a 43-mile branch line from Bureau Junction to Peoria on the Lincoln & Southern tracks within the study area. Between Henry and Chicago, the Iowa Interstate has trackage rights on the CSX's Rock Subdivision. The Iowa Interstate Railroad primarily transports grain, agricultural products, steel, scrap, appliances, intermodal containers and trailers, chemicals, and forest products.

The following connections between IL 29 and barge and rail service exist within the study area:

- United Suppliers, located in Henry's industrial park, is a storage and distribution facility for anhydrous ammonia. The plant receives all its anhydrous ammonia and nitrogen solution by barge, and ships its entire product out by semi trailer (about 3,000 trips annually). About 80 percent of the outbound trips travel northbound on IL 29 and 15 percent travel southbound on IL 29. United Suppliers provides same-day deliveries to customers generally within a 70-mile radius of the plant.
- The International Steel Group (ISG), which purchased the former LTV steel plant in Hennepin, has 70 percent of its unfinished steel coil barged to Hennepin and then trucked to the plant. The remaining 30 percent comes by rail. Ninety percent of the plant's finished steel is trucked out, with a number of trips bound for industries in the Peoria area on IL 29.
- A large percentage of the corn grown between IL 29 and the Kewanee area is shipped by truck to barge terminals in Hennepin, Henry, Lacon, or Chillicothe, requiring trips of various lengths on IL 29. Farmers would also use IL 29 to reach the grain elevator in Putnam, which does not have a barge terminal. Proposed improvements to IL 29 that would reduce travel inefficiencies (such as traveling through communities within the project area) could improve the economics for shippers by allowing them to make one additional trip to barge terminals or grain elevators per day.
- Gravel, sand, and bulk salt are barged to and from the project area requiring use of IL 29.

- A fertilizer producer in the Henry industrial park receives raw materials by truck and the Iowa Interstate Railroad. It ships its finished product by truck throughout the U.S. and Canada and uses IL 29 to access I-180 and the interstate system.

In addition, two potential projects in and near Henry's industrial park—a sand quarry and an ethanol plant—would increase truck traffic on IL 29.

Improvements along IL 29 would provide a safer, more efficient facility that would maximize the benefits of existing intermodal connectivity in the project area and provide greater options for the project area's industrial employers, agri-industries, and their suppliers.

1.2.4 Travel Efficiency

Improvements to IL 29 would result in more efficient and reliable transportation service. Increasing travel efficiency and reliability on IL 29 would reduce transportation costs for commuters, commercial trips, and other trips through the study area, and improve traffic flow. Reliable travel along IL 29 is impeded by a combination of factors discussed below.

1.2.4.1 Existing and Future Traffic

Traffic volumes are expressed as average daily traffic (ADT). The ADT volumes reflect average travel conditions on a particular highway rather than daily or seasonal variations. Forecast volumes are based on historic counts and associated growth trends, and demographic data such as changes in population and employment.

Existing traffic and forecast traffic for 2032 under the No-Build Alternative show that traffic is expected to increase over time. Exhibit 1-6 and Table 1-1 summarize existing traffic and forecast traffic for the design year, which represents the end of the planning period within which traffic forecasts can reasonably be made.

The highest existing and forecast traffic volumes (under the No-Build Alternative) are for the section between IL 6 and IL 17 in Sparland (Table 1-1). Forecast traffic between Sparland and Henry is lower than forecast volumes within the communities themselves. Forecast volumes in Henry are similar to those in Sparland. North of Henry, traffic volumes increase by more than 80 percent between 2001 and 2032, but in terms of ADT remain the lowest in the study corridor.

Table 1-1 also lists the 2032 Build Alternative volumes in the study corridor. The future travel volume pattern with the Build Alternative is similar to that of the No-Build Alternative: higher volumes at the south end of the study corridor gradually decreasing in the northern part of the study corridor. The higher volumes of the Build Alternative (over the No-Build Alternative) indicate that a 4-lane improvement would attract trips from nearby roads such as IL 17, IL 18, IL 40, and IL 26, and from non-state routes such as Yankee Lane and Hardscrabble Road. Some longer trips that would otherwise have used I-39 or I-55 might also find an improved IL 29 more convenient.

IDOT's roadway design guidelines specify 8,000 to 10,000 ADT as the threshold volume that can be handled at an acceptable service level on a 2-lane rural highway. In the study area, that threshold is already exceeded in the 16-mile section between the south project terminus and the south side of Sparland (Exhibit 1-7). North of Sparland the 8,000 to 10,000 ADT threshold would not be exceeded until after 2032 with the exception of Henry. Traffic

volumes in Henry would meet the 4-lane threshold in 2019. It should be noted that while traffic volumes decline north of Sparland and north of Henry those areas also have the highest percentage of trucks in the traffic stream (Table 1-2).

TABLE 1-1
Existing and Design Year Traffic Comparison

IL 29 Section	Existing ADT (2001)	Design Year ADT (2032) (No-Build Alt.)	% Increase (No-Build Alt.)	Expected Year 4-Lane Threshold Would Be Met
Peoria County				
Chillicothe: IL 6 to Truitt Avenue	16,900	26,400	56	Already met
Chillicothe: Truitt Avenue to Wood Street	10,600	14,700	39	Already met
Chillicothe: Wood Street to Yankee Lane	8,700	12,100	39	Already met
Marshall County				
Yankee Lane to Oak Street (Sparland)	8,100	12,900	59	Already met
Oak Street to IL 17 South (Sparland)	7,500	11,900	59	2019
IL 17 South to IL 17 North (Sparland)	5,600	10,300	84	2019
Between Sparland and Henry	3,650–4,000	6,700–7,400	68–102	Beyond 2032
Henry: Spruce Street to IL 18	4,400	8,100	84	2031
Henry: IL 18 to Old Indian Town Road	5,600	10,300	84	2019
Old Indian Town Rd. to Marshall Co. line	3,650	6,700	84	Beyond 2032
Putnam County				
Marshall Co. line to Putnam	3,100	5,700	84	Beyond 2032
Putnam and Bureau Counties				
Putnam to I-180 Interchange	3,050	5,600	84	Beyond 2032

1.2.4.2 Truck Traffic

TABLE 1-2
Truck Percentages in IL 29 Traffic Stream

Section	Percentage of Trucks in ADT[a]
Truitt Avenue to IL 17	7 to 10
IL 17 to TR 13	11 to 14
TR 13 to Kentville Road	16 to 20

[a]Based on year 2001 ADT

The number of heavy trucks in the traffic stream affects traffic operations and safety and contributes to the level of congestion. Heavy trucks are slower, occupy more roadway space, require more turning room, and consequently have a greater effect on the roadway than passenger vehicles. The overall effect of one truck on traffic operation is equivalent to 2 to 5 passenger cars. Thus, the larger the proportion of trucks in the traffic stream, the greater the traffic load and highway capacity required (Transportation Research Board 2000). Table 1-2 summarizes truck traffic in the study area.

Trucks on IL 29 account for 7 to 20 percent of the total ADT in the study corridor. The high percentage of trucks using IL 29 confirms its importance as a major commercial route and important connection in the regional transportation system. On an average weekday, truck

traffic varies from about 600 per day at the north end of the corridor to 900 per day at the south end. In 2032, truck volumes would be expected to increase to 1,100 trucks per day at the north end of the corridor (an 83 percent increase) and 1,300 per day at the south end (a 45 percent increase). Given that trucks are the equivalent of 2 to 5 passenger cars on a 2-lane highway, the substantial predicted increase in truck traffic would increase the number of potential conflicts between trucks and other vehicles throughout the corridor.

The predicted increase in traffic volumes by 2032 would reduce travel reliability by causing slower travel speeds and further interference with local commercial and residential activity. The increase would make it more difficult to enter the highway from driveways and side roads and reduce safe passing opportunities, thereby increasing the potential for accidents.

1.2.4.3 Highway Operations

Level of service (LOS) is a qualitative measure of operational conditions within a traffic stream as perceived by motorists. A designated LOS is described in terms of average travel speed, density, traffic interruptions, comfort, convenience, and safety.

Because drivers will accept different driving operational conditions, including lower travel speeds on different facilities, it is not practical to establish one LOS for application to every type of highway. Therefore, IDOT has established several levels for the various classes and types of highway. The values of speed and design hourly volume used in each case to identify an LOS are the lowest acceptable speed and the highest obtainable volume for that specific level.

TABLE 1-3
Level of Service Design Guidelines (Roadway Mainline)

Highway Type	Applicable Design Level of Service	
	Rural	Suburban/Urban
Freeway/Expressway	B	C
Principal Arterial	B	C
Minor Arterial	C	C
Collector	C	D

LOS A—Free flow with low volumes and high speeds.
LOS B—Reasonably free flow, but speeds beginning to be restricted by traffic conditions.
LOS C—In stable flow zone, but speed selection is restricted.
LOS D—Approaching unstable flow; driver freedom to maneuver is restricted.
LOS E—Unstable flow, short stoppages (represents maximum capacity).
LOS F—Breakdown flow, gridlock.

Source: IDOT, Division of Highways, January 2000. *Bureau of Design and Environment Manual*, Part V.

LOS designations range from "A" to "F," with "A" representing free-flow traffic and "F" gridlock conditions. Table 1-3 summarizes IDOT level of service design guidelines for various types of highways. IL 29 is a rural principal arterial highway in the study corridor, except for short sections in Chillicothe, Sparland, and Henry that may be considered suburban/urban conditions. As indicated, LOS B is the appropriate guideline for the rural parts of the highway and LOS C that for the suburban/urban areas.

Exhibit 1-8 summarizes the existing LOS and Table 1-4 existing and future LOSs along IL 29 for the existing number of travel lanes (or "No-Build" Alternative) compared to IDOT's guidelines. As shown in Table 1-4, peak traffic conditions along some segments of IL 29 already exceed applicable IDOT LOS guidelines. Two segments, one in Sparland and one north of Henry, currently operate at LOS E, which represents maximum capacity. Under 2032 peak traffic conditions, there would be a further decline so that 4 of the 11 sections of IL 29 would be LOS E, and the intersection at IL 18 would exceed capacity (LOS F). For roadways approaching or at maximum capacity, traffic flow is unstable, minor disruptions may cause traffic backups and freedom to maneuver safely is compromised.

TABLE 1-4
Comparison of Existing and Future Level of Service on IL 29

Applicable LOS Guidelines	Existing LOS (2001)	Future LOS (2032)
Chillicothe: IL 6 to South of Cloverdale Road (Suburban/Urban; LOS C)	NA[a]	NA[a]
Chillicothe: South of Cloverdale to Moffit Street[b] (Suburban/Urban; LOS C)	LOS A	LOS B
Cloverdale Intersection	LOS B	LOS C
Walnut Intersection	LOS B	LOS C
Truitt Intersection	LOS B	LOS C
Moffit Street to Yankee Lane (Rural; LOS B)	LOS D	LOS D
Yankee Lane to Oak Street (Sparland) (Rural; LOS B)	LOS D	LOS E
Oak Street to IL 17 South (Sparland) (Suburban/Urban; LOS C)	LOS C	LOS D
IL 17 South Intersection[c]	LOS B	LOS D
IL 17 South to IL 17 North (Sparland) (Suburban/Urban; LOS C)	LOS E	LOS E
Between Sparland and Henry (Rural; LOS B)	LOS B	LOS C
Spruce Street to IL 18 (Henry) (Suburban/Urban; LOS C)	LOS D	LOS E
IL 18 Intersection[d]	LOS B	LOS F
IL 18 to Old Indian Town Road (Henry) (Suburban/Urban; LOS C)	LOS B	LOS C
Old Indian Town Road to Marshall County line (Rural; LOS B)	LOS E	LOS E
Marshall County line to Putnam (Rural; LOS B)	LOS B	LOS C
Putnam to I-180 Interchange (Rural; LOS B)[e]	LOS B	LOS C

Note: Results are based on IL 29 being a Class I Highway. Assumed free flow speeds determined from HI-STAR automatic traffic recorder data furnished by IDOT. The LOS data are based on peak hour traffic volumes for existing (2001) and future (2032) conditions under the No-Build Alternative. LOS was calculated using McTrans Highway Capacity Software (HCS) version 4.1f.

[a]Chillicothe: IL 6 to Truitt Avenue was not analyzed because it is an existing urban divided 4-lane arterial while other sections are 2- to 4-lane undivided arterials.

[b]South of Cloverdale Road to Moffit Street is an existing urban 4-lane undivided section. It was analyzed using Synchro to account for LOS at intersections as well as along the segment.

[c]IL 17 in Sparland is an existing all-way stop that was analyzed as an isolated intersection.

[d]IL 18 in Henry is an existing all-way stop that was analyzed as an isolated intersection.

[e]Putnam has several intersections, but IL 29 does not stop; therefore it was not analyzed as an isolated intersection, but may have a slower speed than the rest of the segment.

1.2.4.4 Existing Highway Characteristics

Existing conditions along IL 29 were examined to identify deficiencies and to provide a basis for defining future roadway requirements capable of meeting the future transportation demand in the corridor.

- There are numerous access points (local roads and driveways) in Chillicothe and Henry and to a lesser extent in Sparland and Putnam. Turning movements to and from access points conflict with the highway's function as a principal rural arterial. The increased traffic volume expected on IL 29 would make access to and from the highway more difficult for both local and through traffic in the future.
- The posted speed limit along IL 29 outside the communities is generally 55 mph, while within communities the speed limit is typically lowered to 30 to 45 mph. The five traffic signals between the IL 6/IL 29 intersection and the north side of Chillicothe and the four-way stop in Sparland (at Ferry Street) and Henry (at IL 18) also contribute to less efficient travel in the study area and higher vehicle operating costs caused by speed change cycles.
- The width of IL 29 forces slow-moving farm equipment, particularly in the Henry to Putnam part of the study area, to use the travel lane, causing conflicts with and slowing the faster moving through traffic. This poses a safety hazard to both farmers and passing motorists. A 4-lane facility would provide better travel service by reducing or eliminating potential conflicts with agricultural equipment.
- Crash information for the study area from IDOT's Division of Traffic Safety for 2001 through 2003 is shown on Tables 1-5 and 1-6. A total of 75 crashes involved single vehicle crashes, 170 crashes involved more than one vehicle and 242 crashes involving deer occurred during this period. There were 28 (6 percent) crashes that involved severe personal injury (Type A), but no fatalities during the period studied.
- Of the 28 severe crashes, 20 occurred in Peoria County between IL 6 and Peoria/Marshall County line and 8 crashes occurred along the corridor at other locations. Of the 20 crashes in Peoria County, 4 crashes occurred between Cloverdale Road and Three Sisters Park, 4 between Francis Street and Truitt Avenue, 5 between Caldwell Street and Yankee Lane, and the remaining 7 between IL 6 and Washington Street.
- Of the 28 severe injury crashes, 32 percent involved a fixed object, 21 percent resulted in an overturned vehicle, 18 percent were rear end crashes, 18 percent were turning or angle crashes, and 11 percent were another crash type like pedestrian, animal, or sideswipe crash. Because most of the crashes occurred in an area of closely spaced intersections and majority of accidents were single vehicle accidents, congestion, clear zones and sight distance could be the probable contributing factors.
- The statewide average rate (excluding deer) for 2-lane rural highways is 0.65 crash per million vehicle miles (MVM). The only segments of Illinois Route 29 where crash rates (excluding deer) were approximately equal to the statewide average were between the Peoria/Marshall County Line and Illinois Route 17 (0.65) and between Camp Grove Road and Illinois 18 (0.63). None of the 2-lane urban, 4-lane urban, or 4-lane rural sections approached the statewide average.

TABLE 1-5
Crash Summary, 2001 Through 2003

County	Single Vehicle Involving Animals	Single Vehicle Involving Other	Multiple Vehicle Involving Animal	Multiple Vehicle Involving Other	Other
Peoria	53	47	0	144	**244**
Marshall	119	14	1	21	**155**
Putnam	55	9	0	2	**66**
Bureau	14	5	0	2	**21**
Total	**241 (50%)**	**75 (15%)**	**1 (0%)**	**169 (35%)**	**486 (100%)**

TABLE 1-6
Crash Severity Summary, 2001 Through 2003

County	Fatalities	Severe Injury (Type A)	Other Injury (Types B &C)	Property Damage Only	Total Crashes
Peoria	0	20	45	178	**244**
Marshall	0	5	15	135	**155**
Putnam	0	2	3	61	**66**
Bureau	0	1	3	17	**21**
Total	**0 (0%)**	**28 (6%)**	**66 (14%)**	**391 (80%)**	**486 (100%)**

- Based on national research,[1] a 30.9 percent rate of collision with animals would be anticipated on rural 2-lane highways. In contrast, the 4-county average rate of collision with animals on Illinois Rout 29 is 50 percent (Table 1-5). That percentage is higher within Marshall, Putnam, and Bureau counties.
- Two intersections in the Illinois Route 29 study area have been identified as high accident locations. These are the intersections of Illinois Route 29 and Walnut Street in Chillicothe and Illinois Route 6 and Old Galena Road/State Street/CH 59 in Peoria County.
- Although safety is not identified as a major component of the need of the proposed action, the alternatives being evaluated addresses safety issues by providing better access control a contributing factor for reducing congestion, improving sight distance and improving traffic flow. The alternatives developed provide better roadside clearance that help avoid fixed object crashes and vehicle running off the road incidents.

1.3 Economic Stability

Two major goals of the state's transportation system are to enhance the state's economic advantage and to retain existing economic bases (including the viability of the agricultural sector) and employment in rural areas. Ensuring economic stability in the project corridor and

[1]D. W. Harwood et al. 2000. *Prediction of the Expected Safety Performance of Rural Two-Lane Highways.*

improving IL 29 are closely linked. Commercial and industrial uses in Chillicothe, Sparland, Lacon, Henry, and Hennepin stimulate transportation demand by increasing the number of workers commuting to and from work, the customers traveling to and from services areas, and the products being shipped between producers and consumers.

In today's competitive economy, agricultural and industrial products and parts produced in the study area must move quickly and safely throughout the state, the country, and the world. Businesses and agricultural interests in the study area depend on an efficient highway system with connections to rail and barge facilities to meet their shipping needs. The transport of raw materials and finished products is a large part of the business costs borne by manufacturers and agricultural interests. Expanding IL 29 from 2 to 4 lanes would benefit agricultural interests and existing commercial and industrial development in the study area by decreasing transportation costs and making transportation more reliable. Decreasing transportation costs by eliminating the deficiencies of IL 29 and maximizing existing intermodal connections allows commercial and industrial development and area farmers to transport raw and finished products at less cost. As a result of reduced transportation costs, businesses in the study area could experience greater profitability or increased market share.

Residents could benefit when travel becomes more efficient and transportation costs are lowered. Besides the inherent value of increased mobility associated with improvements to IL 29, study area residents would benefit from the increased efficiency in commuting to employment outside their county of residence or increased employment options as their range of feasible commuting is expanded. Table 1-7 indicates the high percentage of study area residents that commute outside their county of residence. According to the 2000 Census, more than one-half of the workers in Marshall and Putnam counties worked outside their county of residence. Between 1990 and 2000 the number of workers in all study area counties has increased as has the number of workers working outside their county of residence. While the destination of commuter trips is uncertain, it is reasonable to assume that most are bound for employment centers in Peoria, Mossville, Chillicothe, Lacon, Henry, and Hennepin and would use IL 29.

The supply of labor to study area employers could increase as more potential employees fall within their commuting range. With a high quality labor force and competitive labor costs already in place, the elimination of transportation inadequacies is critical to enhancing economic stability.

TABLE 1-7
Employee Travel Characteristics for 1990 and 2000

	Number of Workers		Worked Outside County		Percent of Total	
County	**1990**	**2000**	**1990**	**2000**	**1990**	**2000**
Bureau	16,015	17,184	4,868	6,337	30.4	36.9
Marshall	5,765	6,492	2,502	3,292	43.4	50.7
Peoria	80,525	84,003	11,542	12,492	14.3	14.9
Putnam	2,599	2,777	1,351	1,662	52.0	59.8

Source: 1990 and 2000 Censuses.